WHAT IS CLAIMED IS:

1. An image processing apparatus comprising:

at least one of a image reading unit which reads an image data (first image data), a image memory control unit which writes/reads the image data (second image data) by controlling a memory, an image processing unit which processes the image data to obtain a third image data, and an image writing unit which prints an image corresponding to the image data on a paper; and

an image data control unit which receives at least one of the first image data, the second image data, and the third image data, and transmits received image data to any one of said image memory control unit, said image processing unit, and said image writing unit.

2. The image processing apparatus according to claim 1, wherein said image processing is realized with a processor and the program of this processor is changeable.

3. The image processing apparatus according to claim 1, wherein said image processing is realized with an SIMD (Signal Instruction Multiple Data stream) processor.

4. The image processing apparatus according to claim 1 further comprising,

a first processor which controls any of said image reading unit, said image processing unit, and said image writing unit through a first bus; and

a second processor which controls said image memory control unit through a second bus,

wherein said image data control unit controls the interface between said first bus and said second bus.

5. The image processing apparatus according to claim 4 further comprises a facsimile control unit connected to any of said image memory control unit and said image data control unit through said second bus, which facsimile control unit transmits or receives a facsimile image from or to any of said image memory control unit and said image data control unit.

6. The image processing apparatus according to claim 5,

wherein said image reading unit, said image data control unit, said image memory control unit, said image processing unit, said image writing unit, and said facsimile control unit are configured as independent units.

7. An image processing apparatus comprising:

at least one of a image reading unit which reads an image data (first image data), an image processing unit which processes the image data to obtain a second image data, and an image writing unit which prints an image corresponding to the image data on a paper; and

an image data control unit which receives at least one of the first image data and the second image data, and stores the received image data into a memory, and transmits the image data stored in the memory to any one of said image processing unit and said image writing unit.

8. The image processing apparatus according to claim 7,

wherein said image memory control unit has been connected through said image data control unit to any of said image reading unit, said image processing unit, and said image writing unit, and

wherein said image data control unit transmits the image data to or receives the image data from said image memory control unit and any one of said image reading unit, said image processing unit, and said image writing unit.

9. The image processing apparatus according to claim 7,

wherein said image processing is realized with a processor and the program of this processor is changeable.

10. The image processing apparatus according to claim 7, wherein said image processing is realized with an SIMD (Signal Instruction Multiple Data stream) processor.

11. The image processing apparatus according to claim 8 further comprising,

a first processor which controls any of said image reading unit, said image processing unit, and said image writing unit through a first bus; and

a second processor which controls said image memory control unit through a second bus,

wherein said image data control unit controls the interface between said first bus and said second bus.

12. The image processing apparatus according to claim 11 further comprises a facsimile control unit connected to any of said image memory control unit and said image data control unit through said second bus, which facsimile control unit transmits or receives a facsimile image from or to any of said image memory control unit and said image data control unit.

13. The image processing apparatus according to claim 12, wherein said image reading unit, said image data control unit, said image memory control unit, said image processing unit, said image writing unit, and said facsimile control unit are

configured as independent units.

14. An image processing apparatus comprising:

at least one of a image reading unit which reads an image data (first image data), a image memory control unit which writes/reads the image data (second image data) by controlling a memory, and an image writing unit which prints an image corresponding to the image data on a paper; and

an image processing unit which receives at least one of the first image data and the second image data, processes the received image, and transmits the processed image data stored in the memory to any one of said image memory control unit and said image writing unit.

15. The image processing apparatus according to claim 14,

wherein said image processing unit has been connected through said image data control unit to any of said image reading unit, said image memory control unit, and said image writing unit, and

wherein said image data control unit transmits the image data to or receives the image data from said image processing unit and any one of said image reading unit, said image memory control unit, and said image writing unit.

16. The image processing apparatus according to claim 14, wherein said image processing unit comprises,

a correcting unit which corrects the deterioration of the information of the first image data; and

an image quality processing unit which processes the image quality of the image data corrected by said correcting unit or the second image data in accordance with the image formation characteristic.

17. The image processing apparatus according to claim 14, wherein said image processing is realized with a processor and the program of this processor is changeable.

18. The image processing apparatus according to claim 14, wherein said image processing is realized with an SIMD (Signal Instruction Multiple Data stream) processor.

19. The image processing apparatus according to claim 15 further comprising,

a first processor which controls any of said image reading unit, said image processing unit, and said image writing unit through a first bus; and

a second processor which controls said image memory control unit through a second bus,

wherein said image data control unit controls the

interface between said first bus and said second bus.

20. The image processing apparatus according to claim 19 further comprises a facsimile control unit connected to any of said image memory control unit and said image data control unit through said second bus, which facsimile control unit transmits or receives a facsimile image from or to any of said image memory control unit and said image data control unit.

21. The image processing apparatus according to claim 20, wherein said image reading unit, said image data control unit, said image memory control unit, said image processing unit, said image writing unit, and said facsimile control unit are configured as independent units.

22. An image processing method comprising the steps of:

receiving the image data from any one of a plurality of processing units for processing the image data differently, including the image data read process, the accumulation, image processing (manipulation and editing), write operation and the transmission/receiving process;

acquiring the image data control information including the information on the contents of the processing for the image data received at the image data receiving step;

determining a destination processing unit for

transmitting the image data received by the image data receiving step, based on the image data control information acquired at the image data control information acquisition step; and

transmitting the image data to the destination processing unit determined by the destination processing unit.

23. The image processing method according to claim 22, further comprising the step of inputting the image data control information,

wherein the image data control step acquires the image data control information input at the input step.

24. A computer readable medium for storing instructions, which when executed by a computer, causes the computer to perform the steps of:

receiving the image data from any one of a plurality of processing units for processing the image data differently, including the image data read process, the accumulation, image processing (manipulation and editing), write operation and the transmission/receiving process;

acquiring the image data control information including the information on the contents of the processing for the image data received at the image data receiving step;

determining a destination processing unit for transmitting the image data received by the image data receiving

step, based on the image data control information acquired at the image data control information acquisition step; and

transmitting the image data to the destination processing unit determined by the destination processing unit.